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Oncology Treatment Plan Updates in EPIC-Beacon

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Background

In Medical Oncology, the utilization of EPIC-Beacon Treatment Plans is integral for prescribing and administering cancer treatments. These treatment plans typically consist of anticancer infusion medications (chemotherapy, immunotherapy, etc.), supportive care medications, required laboratory orders, and other monitoring recommendations to ensure that patients receive safe and effective care. In 2017, TJUH transitioned from Varian's Aria to EPIC's electronic medical record system. Since then, there has not been a formal review of existing plans, and there are many inconsistencies between plans in different cancer types.

Problem Statement:

- Currently, there is not a formal process for review of existing treatment plans, and standardization efforts have been limited.

Project Aim:

- Establish standardized guidelines for all components of the EPIC-Beacon Treatment plans, perform a review of all standard-of-care EPIC-Beacon Treatment plans, and develop a process for future review.

Baseline Metrics

At the start of this project, nearly 1000 EPIC-Beacon plans were built and available for ordering.

- Inclusion Criteria: Standard of care and research plans if the treatment was considered standard of care and antiemetic premedications needed to be updated.
- Exclusion Criteria: Plans containing only oral anticancer medications, intrathecal medications, urology bladder instillations, interventional radiology treatments, and research plans without standard of care treatments.

Cancer Type	Approximate # of Plans (including Research)
BMT/CAR-T Therapy	46
Breast Cancer	115
CNS Cancer	21
Gastrointestinal Cancer	168
Genitourinary Cancer	76
Gynecologic Cancer	92
Head & Neck/Thyroid Cancer	47
Leukemia	112
Lung Cancer	75
Lymphoma	126
Melanoma	53
Multiple Myeloma	59
Sarcoma	46

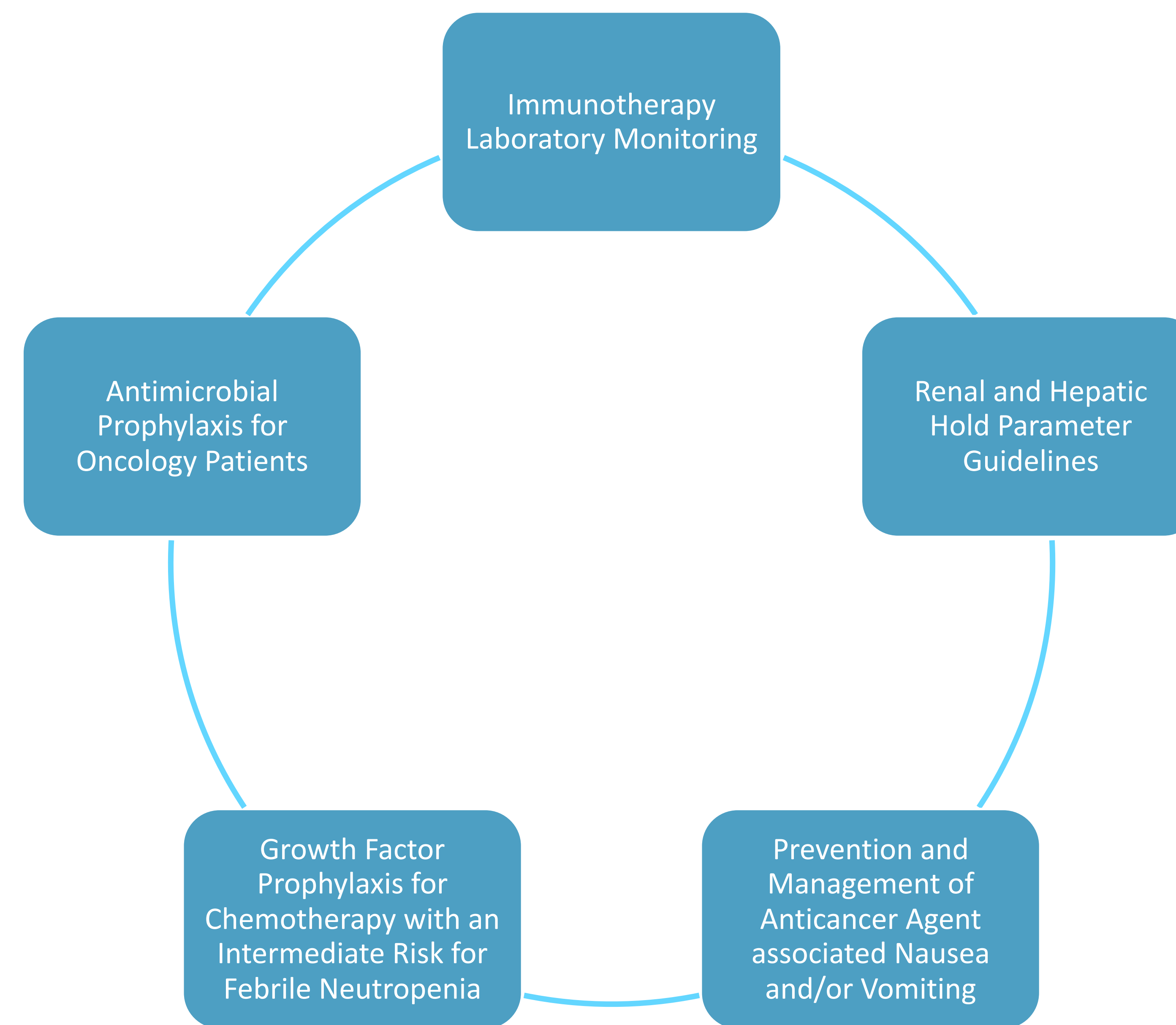
BMT: bone marrow transplant; CAR-T: chimeric antigen receptor T-cell; CNS: central nervous system

Interventions

Phase 1:

- The Department of Oncology Pharmacy began with a review of every FDA-approved formulary anticancer medication package insert to ensure that drug-specific recommendations for safety and monitoring were included in each treatment plan.

Guidelines and Recommendations Developed for this Project



Phase 2:

- Oncology Pharmacy reviewed each treatment plan and compiled a list of updates based on the package inserts, guidelines, and recommendations as listed above.

Cancer Type	Plans Reviewed	Plans Updated (%)	Average # Interventions Per Plan
Breast Cancer	110	90 (82)	2.47
Gastrointestinal Cancer	130	92 (71)	1.66
Genitourinary Cancer	73	70 (96)	2.44
Melanoma	19	18 (95)	2.2
Sarcoma	43	41 (95)	3.07

Challenges and Lessons Learned

- The Jefferson Health Enterprise has grown to include 7 different infusion sites, which complicates alignment and standardization efforts.
- Each phase of this project has taken significant time, and new plans were built while others were in review or being updated leading to increased turnaround times.
- Due to the number of updates and the need for insurance authorization with any treatment plan changes, it has not been possible to update plans for active patients, which has led to some confusion in the infusion center.
- Staffing challenges are a major barrier to quality improvement projects, especially at such a large scale.
- Interdisciplinary collaboration is key – provider and nursing input throughout this project has been crucial.

Future Directions

- Continued review and update of remaining solid tumor and hematologic malignancies plans.
- Develop a plan for annual review of all updated plans.
- Consider a similar project for the oral anti-cancer medication treatment plans.

Linkage to Healthcare Disparities

The EPIC-Beacon Treatment Plans are used to prescribe cancer treatments to patients across the Jefferson Health Enterprise. Jefferson Health currently utilizes Oncology Pathways to support decision-making throughout the chemotherapy ordering process. This project represents the next step in alignment across the Enterprise. Standardization allows all patients to receive the same quality, guideline-directed care at each Jefferson Health site. Developing a mechanism for annual review and updates will also ensure that Jefferson Health patients continue to receive excellent care that reflects national best practice guidelines.